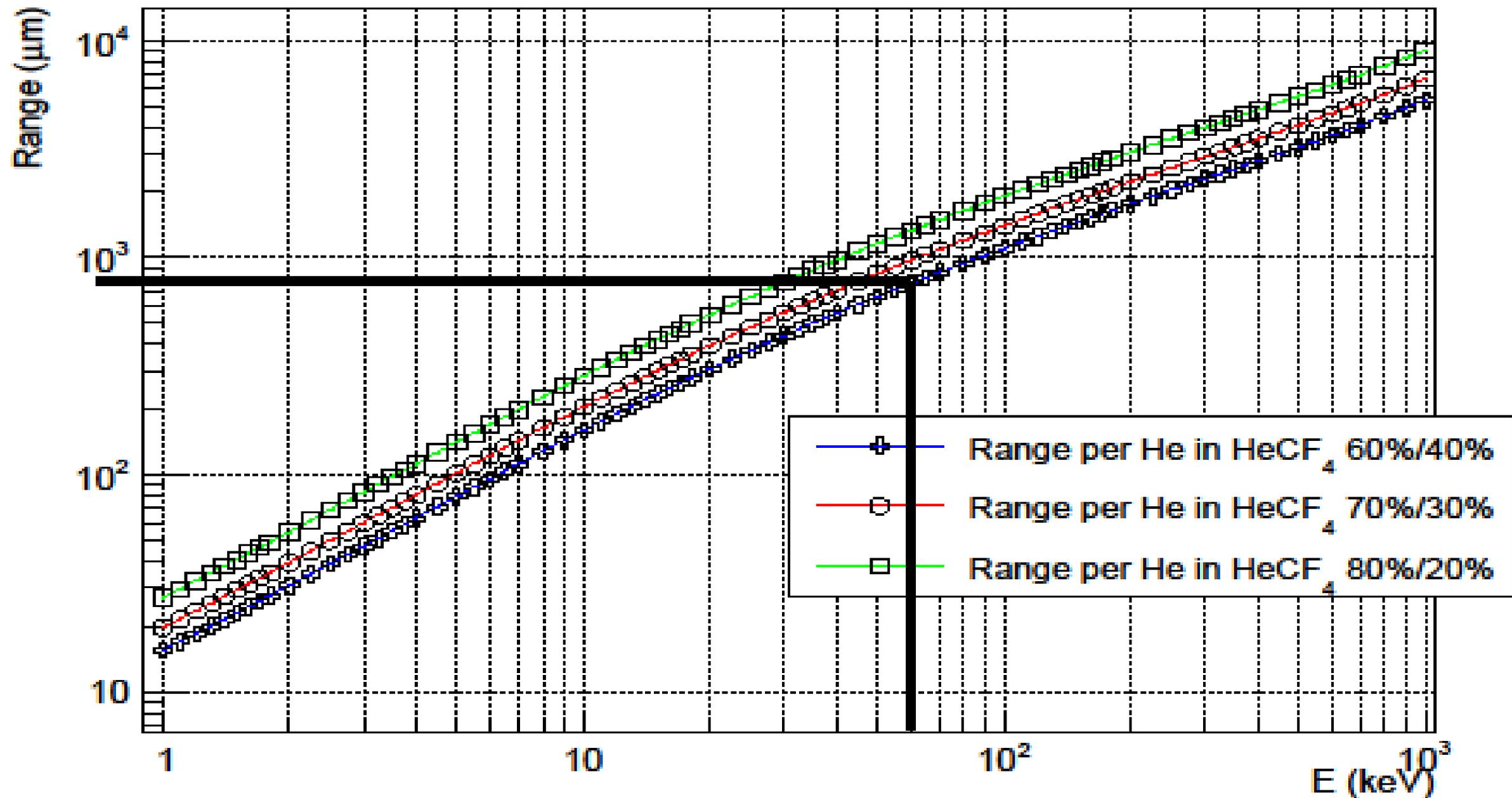
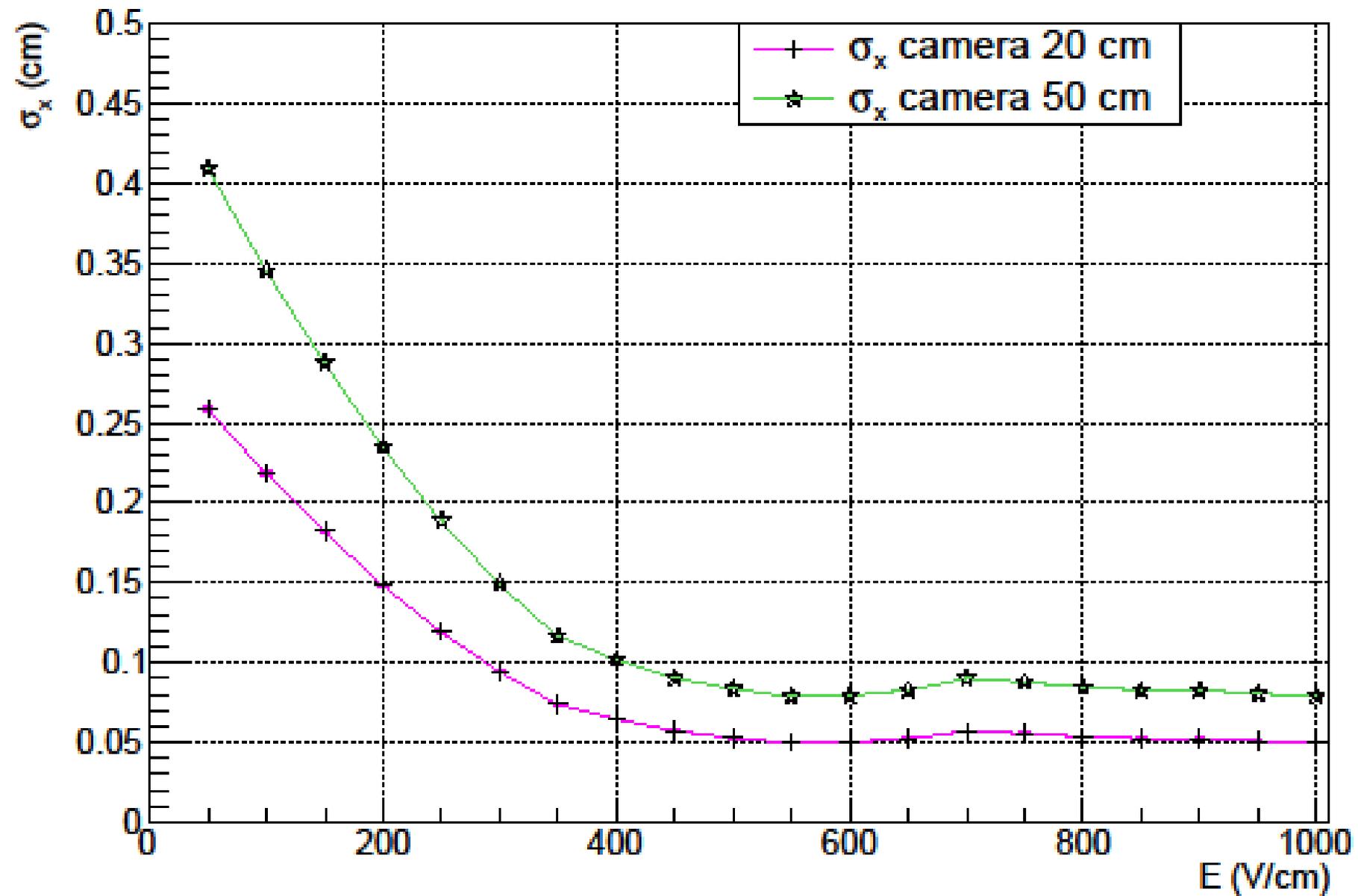


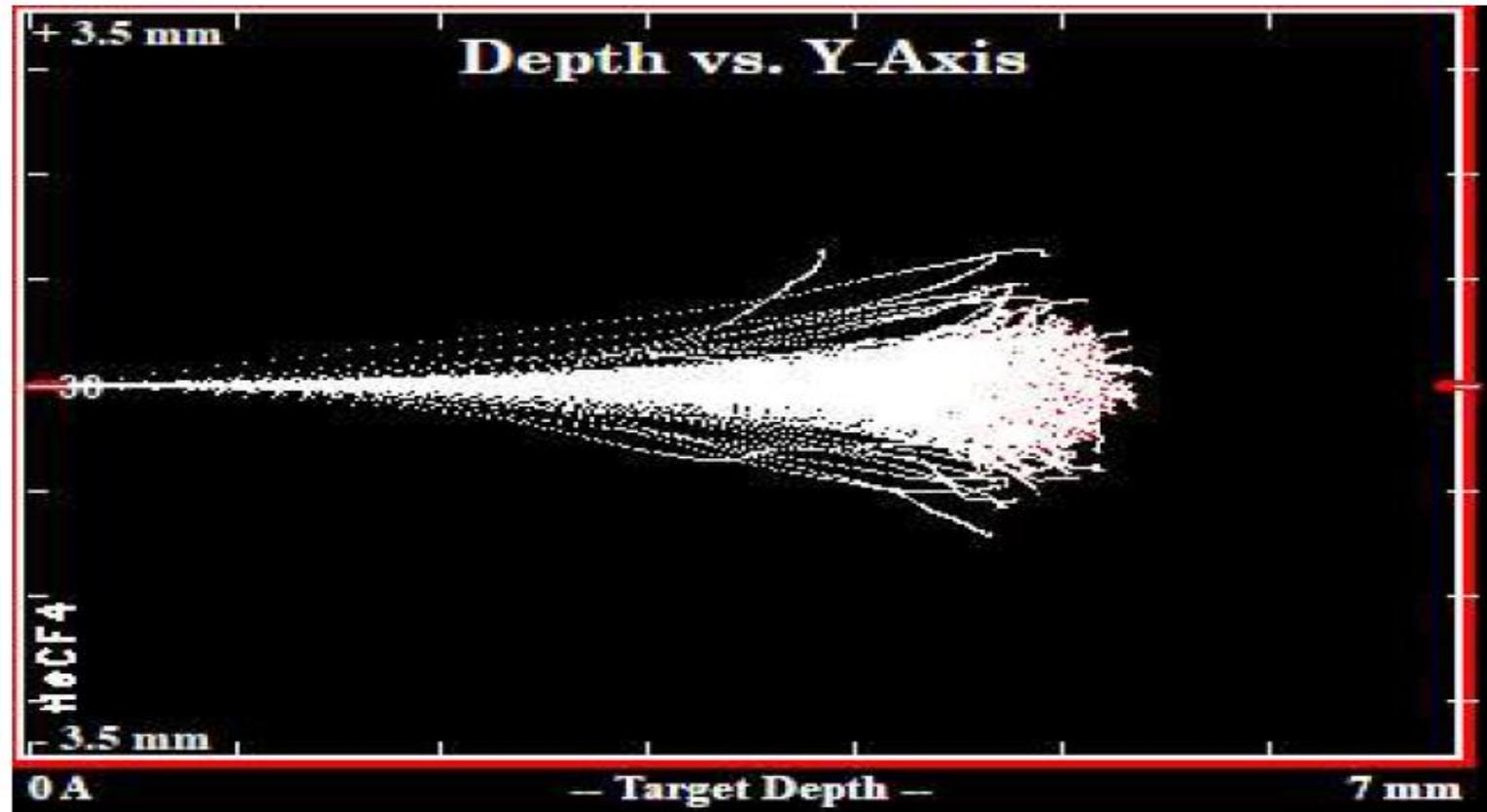
# Range He in HeCF<sub>4</sub>



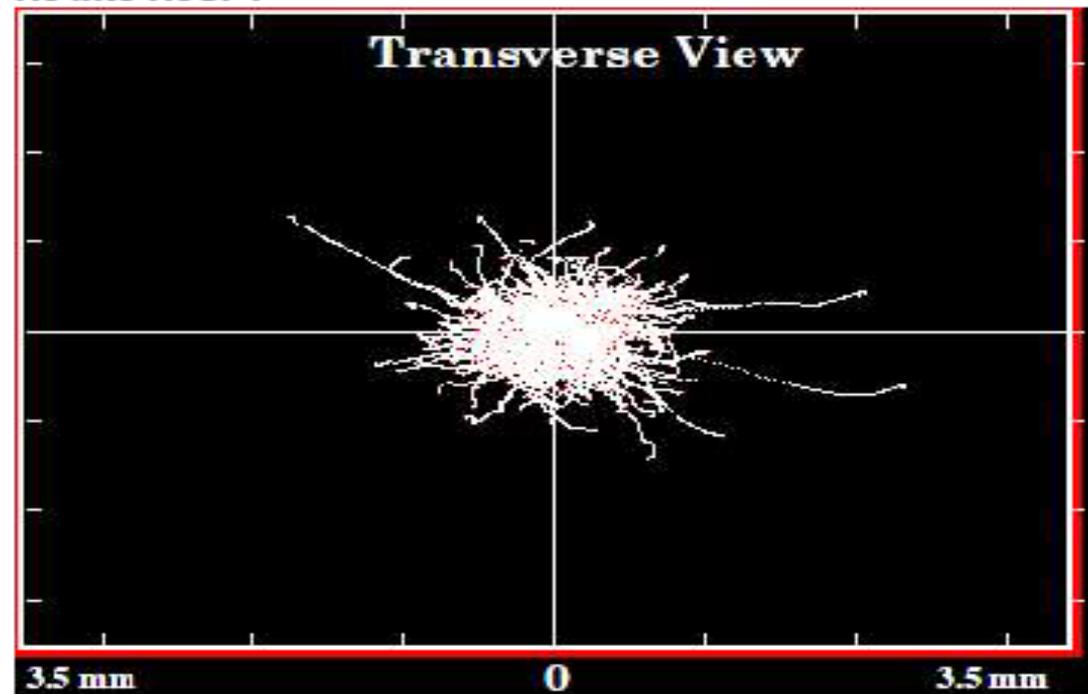
# $\sigma_x$ camera HeCF<sub>4</sub> 60%/40%



Utilizzando Geant e SRIM sono stati simulati elettroni e ioni di He all'interno di una camera 10 cm di una miscela HeCF<sub>4</sub> 60%/40%. Combinando la ionizzazione lasciata dalle tracce con la diffusione che si ottiene dalla deriva degli elettroni, è stato riprodotto il segnale che producono queste particelle.



## He into HeCF4



## 1000 Ions Calculated

Ion Type = He  
Ion Energy = 1 MeV  
Ion Angle = 0

### Calculation Parameters:

Backscattered Ions 0  
Transmitted Ions 0  
Vacancies/ion 145,5

**ION STATS**

	Range	Straggle
Longitudinal	4.96 mm	199. um
Lateral Proj.	258. um	330. um
Radial	404. um	254. um

Type of Damage Calculation  
Quick: Kinchin-Pease

Stopping Power Version  
SRIM-2008

% ENERGY	LOSS	
	Ions	Recoils
Ionization	98,98	0,23
Vacancies	0,01	0,02
Phonons	0,10	0,66

SRIM-2013.00  
agosto 09, 2019  
www.SRIM.org

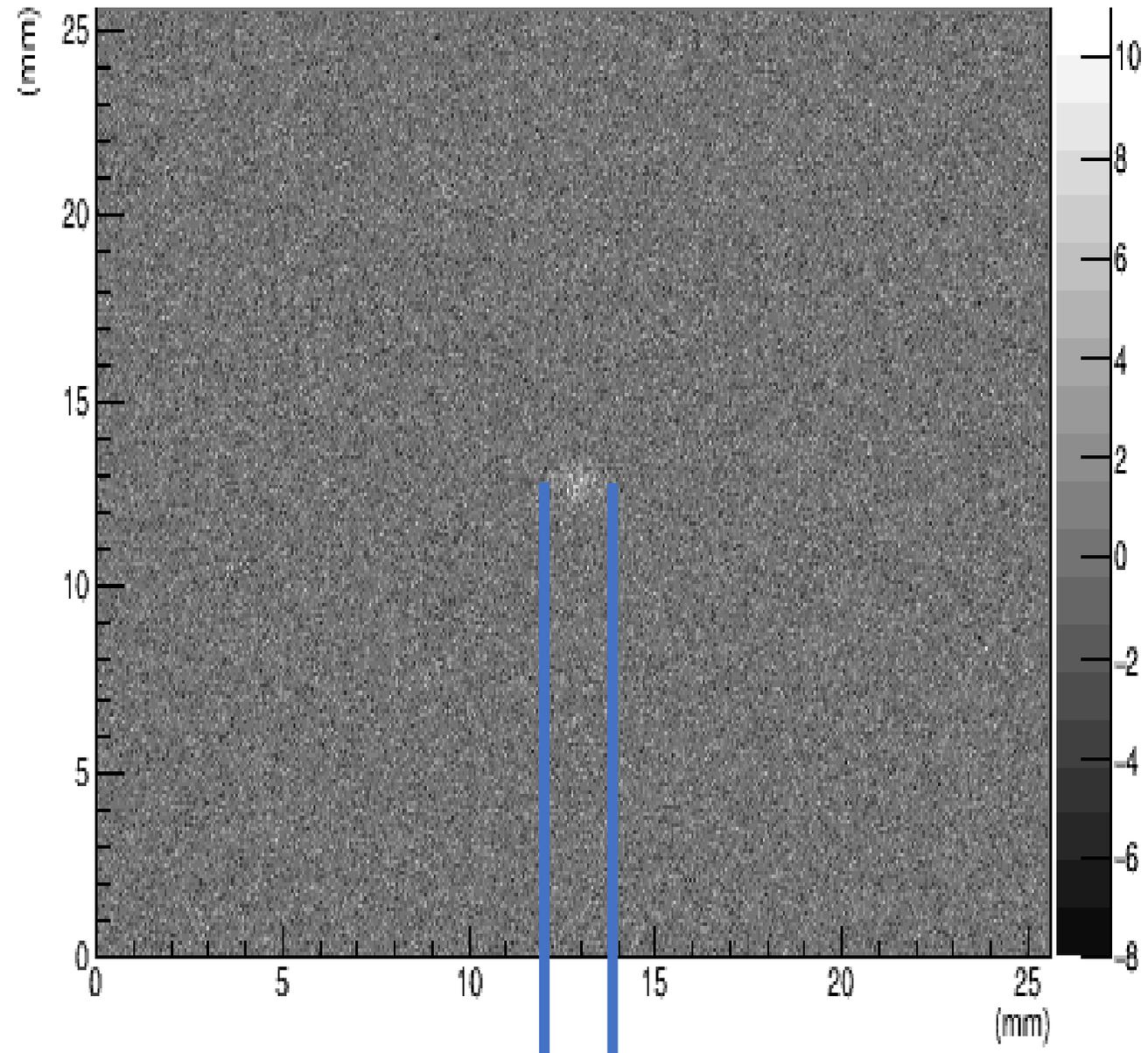
### SPUTTERING YIELD

	atoms/ion	eV/ion
TOTAL		
He	0,000000	0,00
C	0,000000	0,00
F	0,000000	0,00

## Target layers:

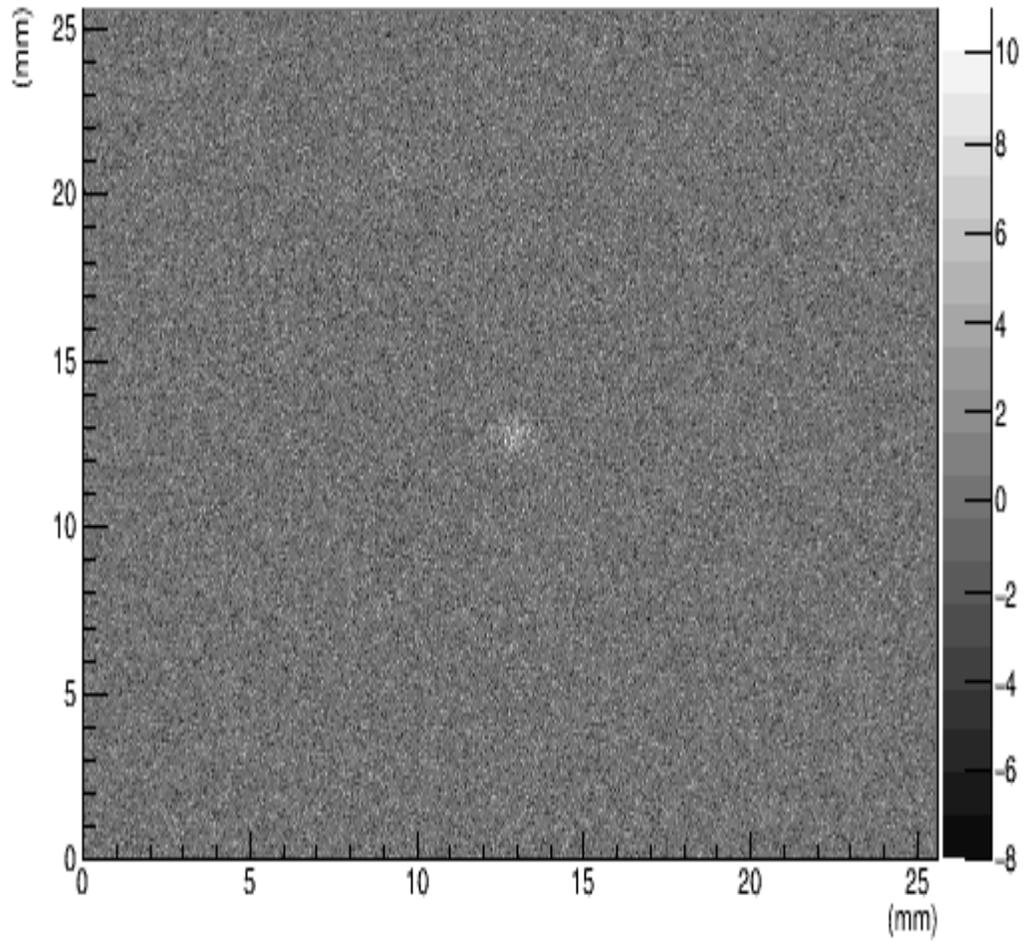
	Layer Name	Width (Å)	Density	He (4.003)	C (12.011)	F (18.998)	Solid/Gas	Stop Cont.
1	HeCF4	1000000000	0.001592	2.23077	2.15385	2.61538	Solid	1
	Lattice Binding Energy			1	3	3		
	Surface Binding Energy			2	7.41	2		
	Displacement Energy			5	28	25		

**Simulazione con  
SRIM di He 6 keV  
in HeCF4  
60%/40%**

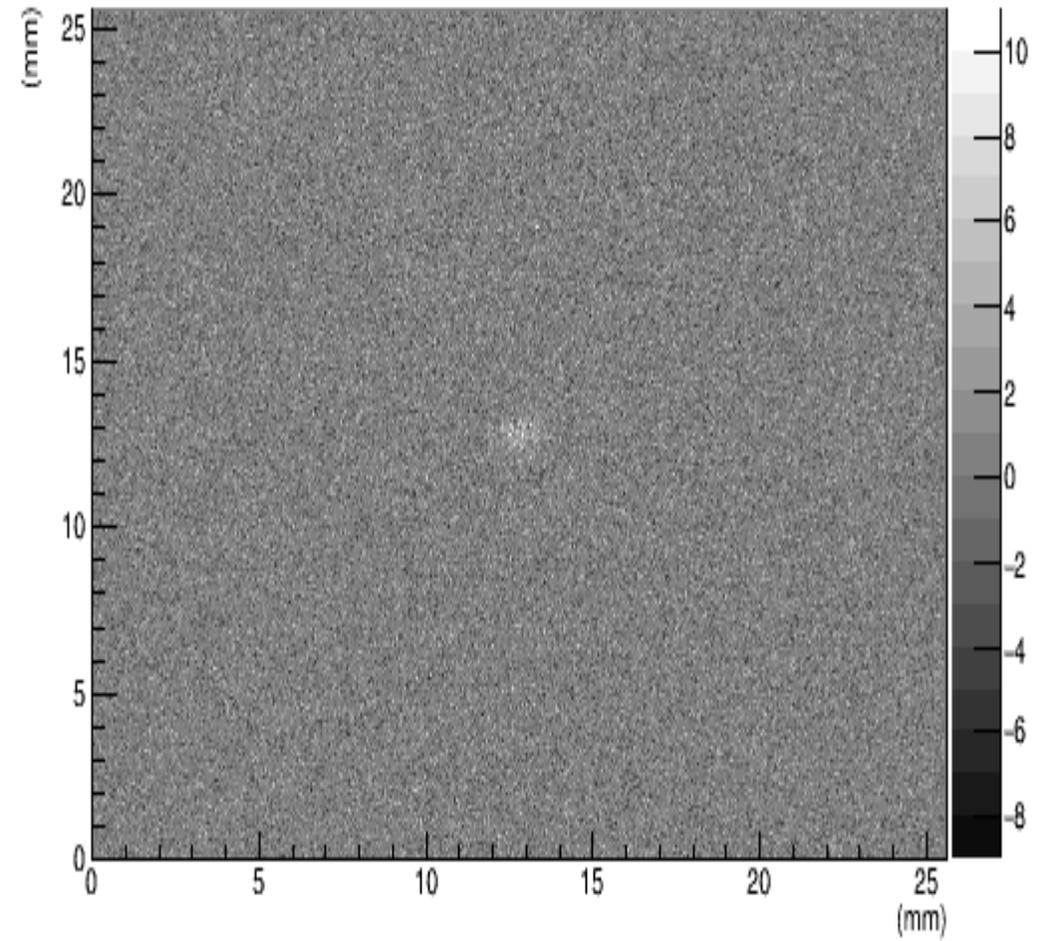


# He 6 keV in HeCF4 60%/40%

SRIM

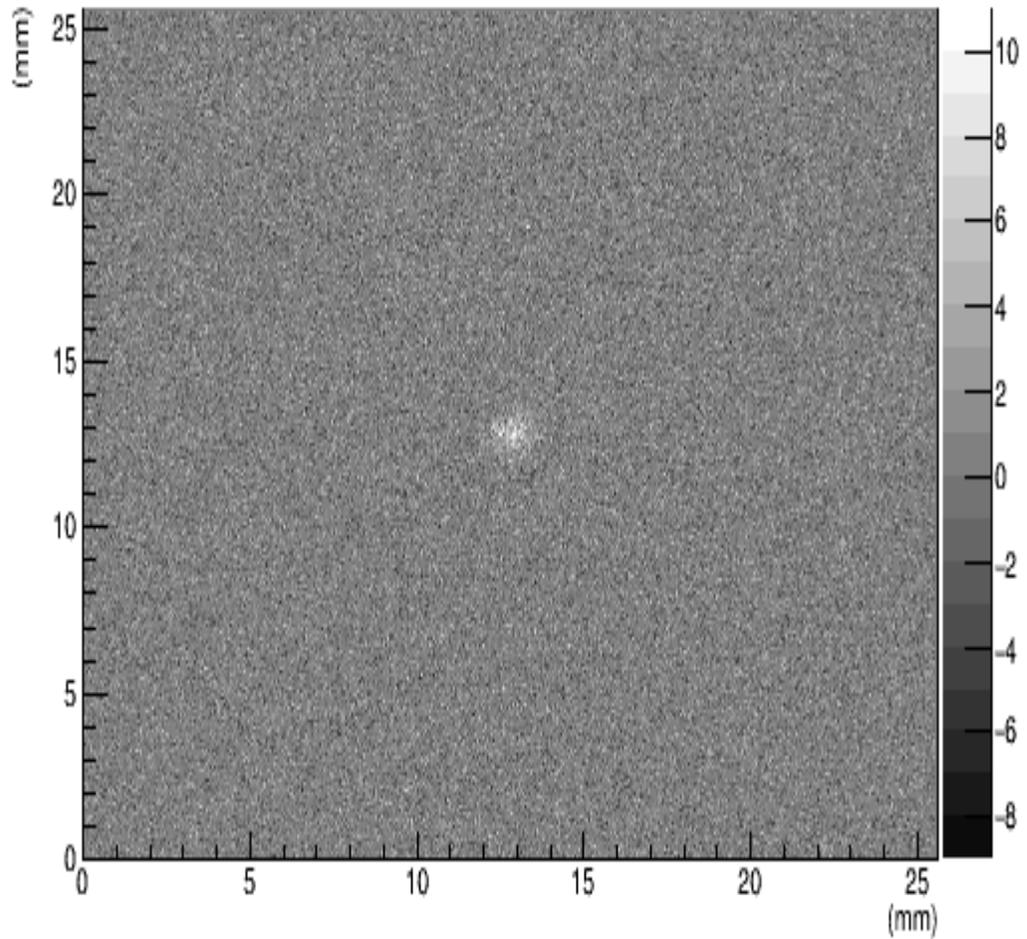


GEANT

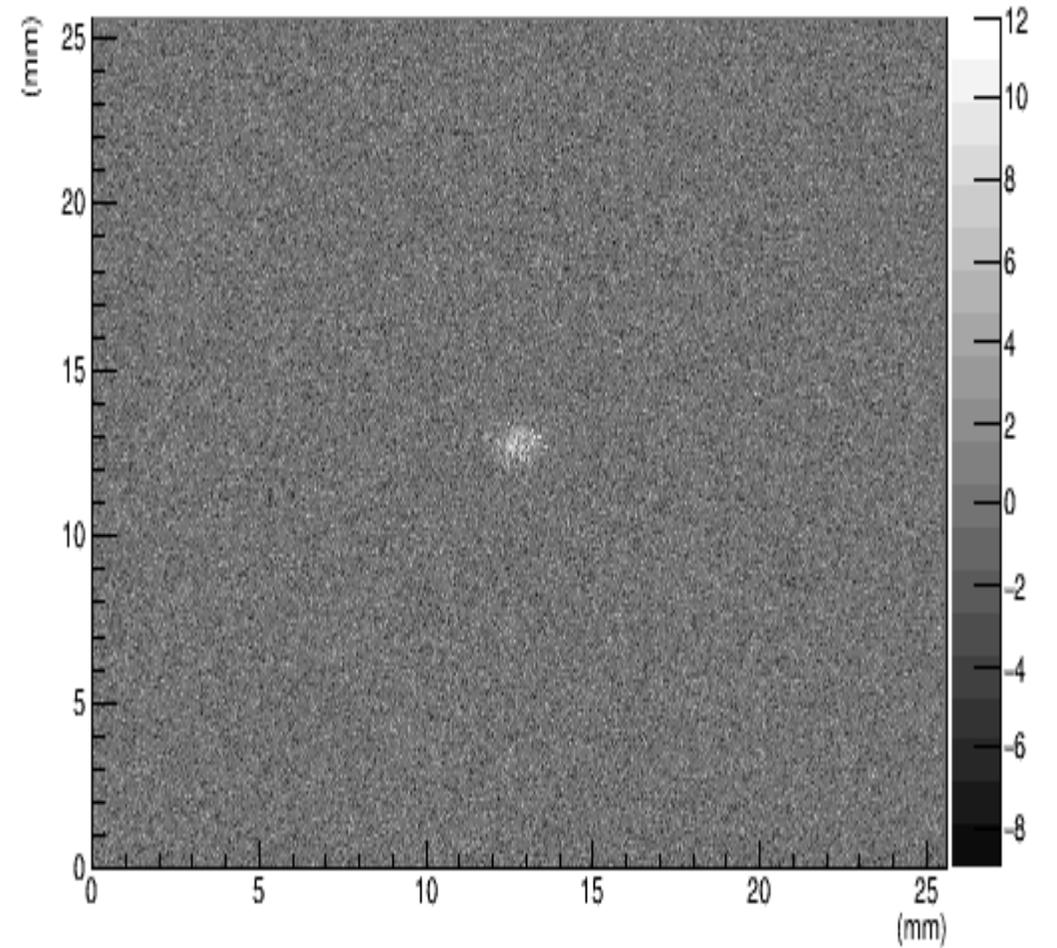


# He 10 keV in HeCF4 60%/40%

SRIM

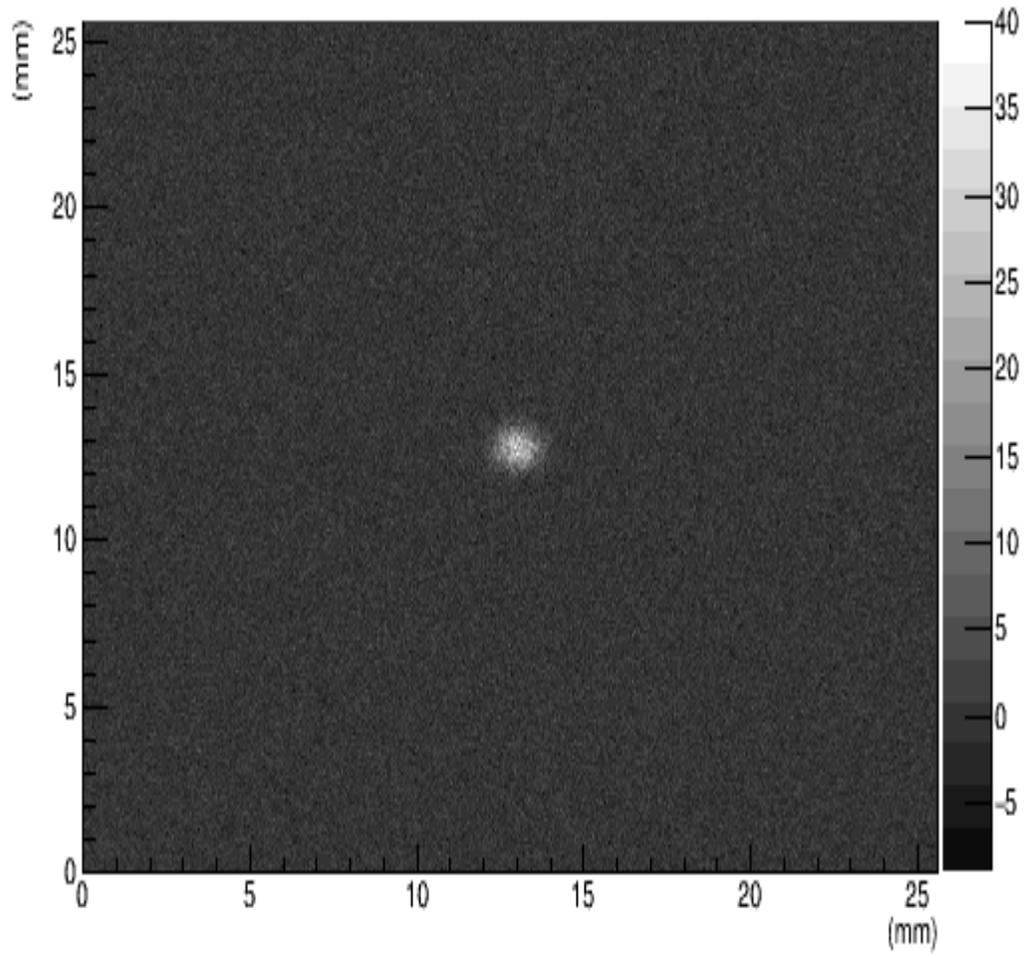


GEANT

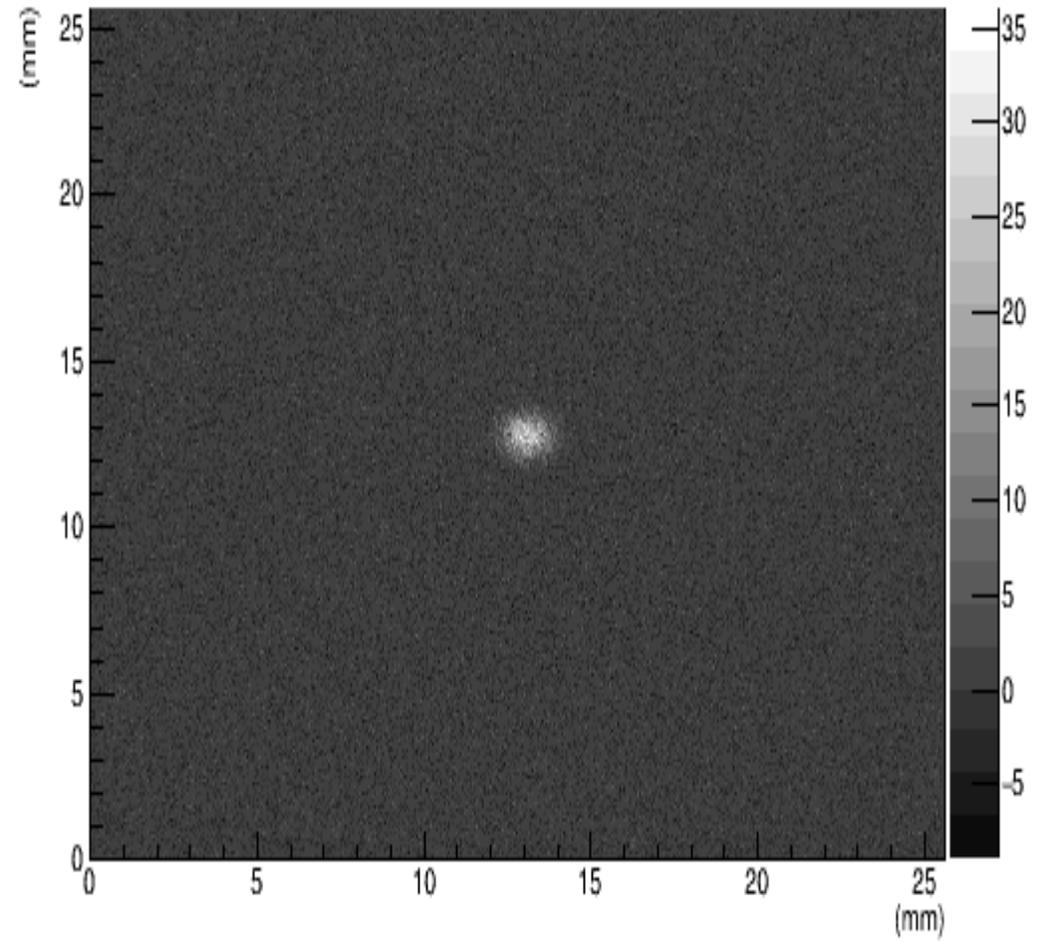


# He 60 keV in HeCF4 60%/40%

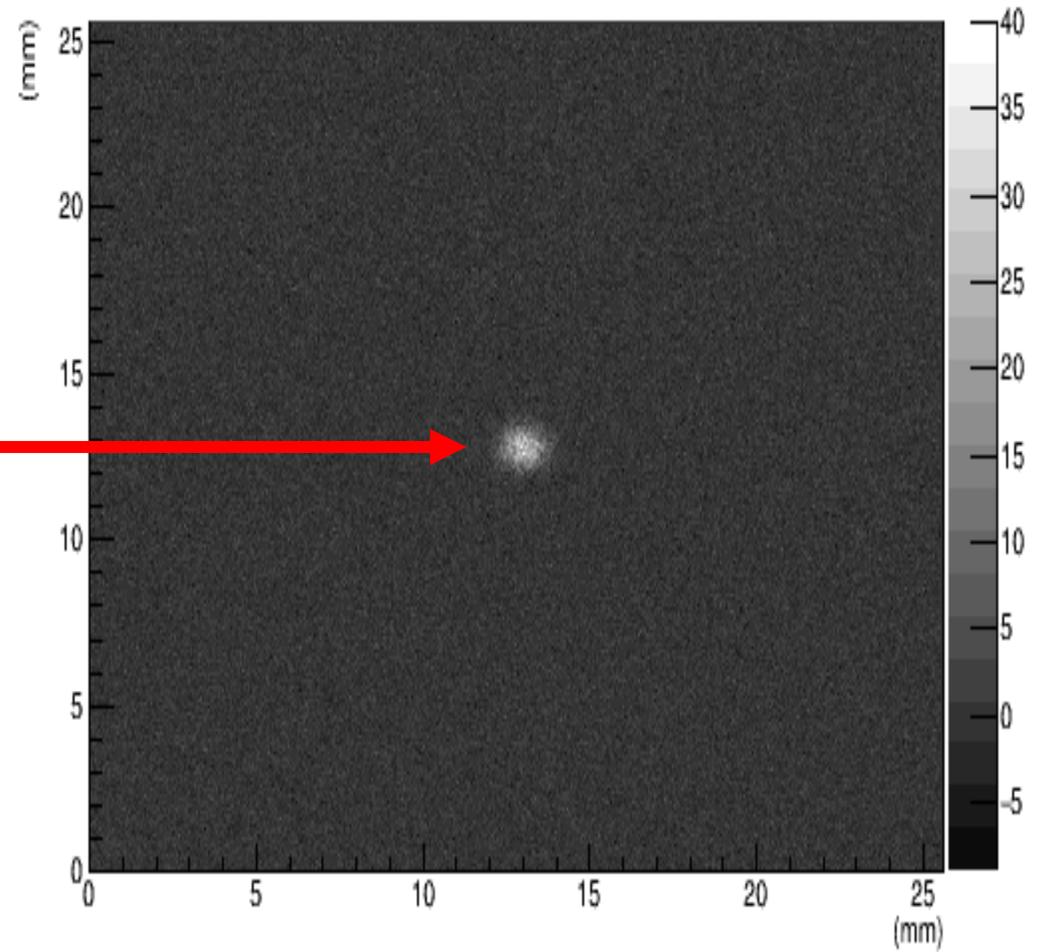
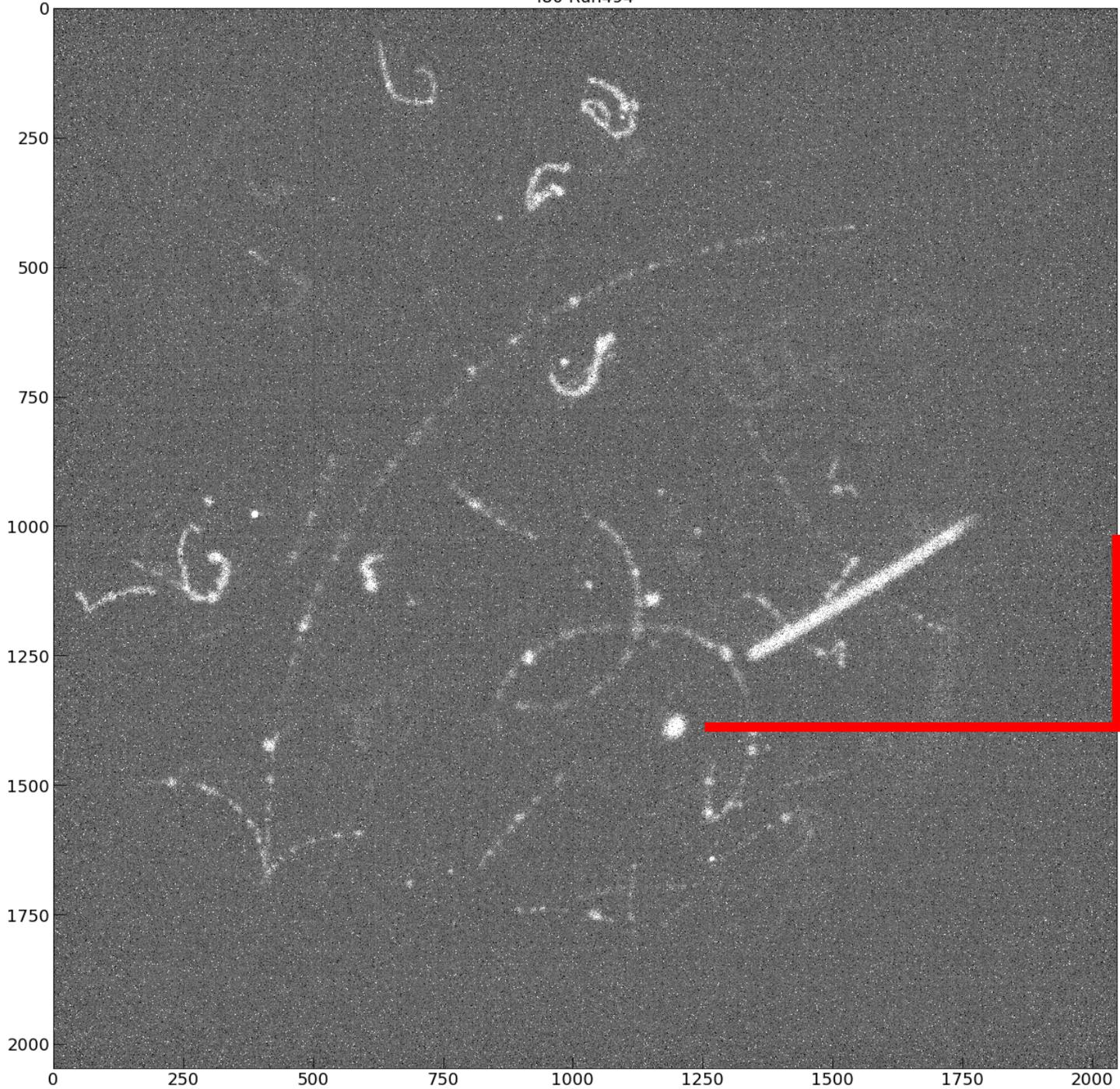
SRIM



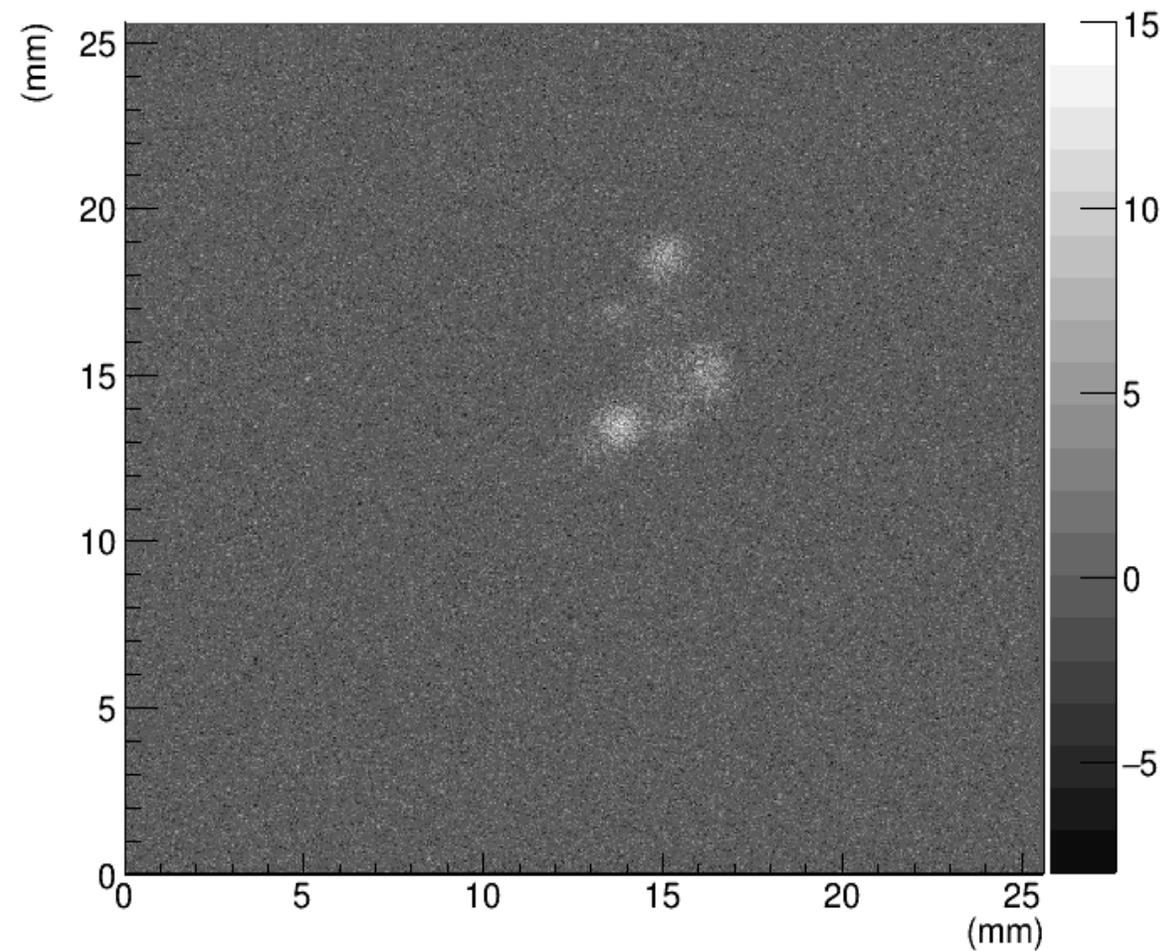
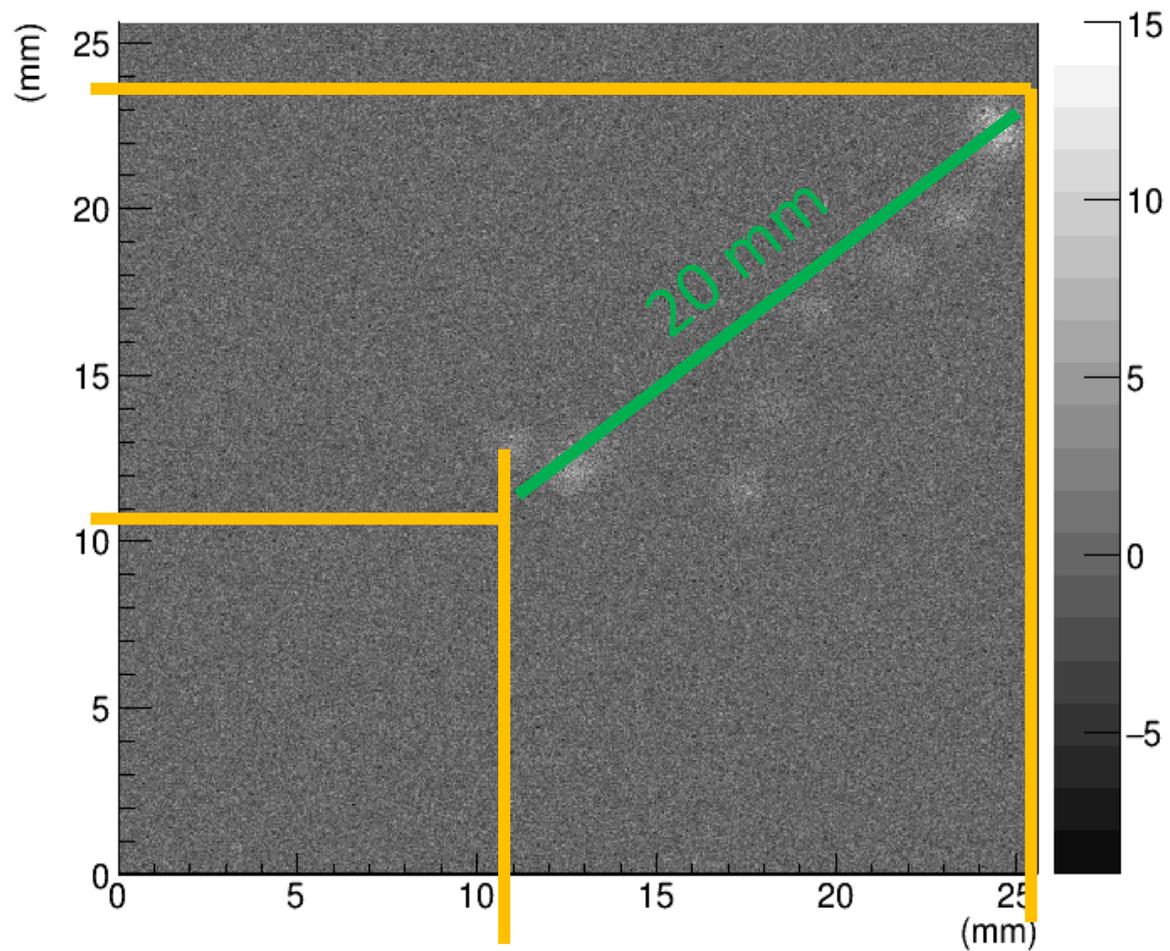
GEANT



180 Run494



# Elettroni 60 keV in HeCF4 60%/40%



I56 Run494

